



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/723,343	11/26/2003	Wim De Pauw	YOR920030415US1	8770

7590 10/03/2006
Ryan, Mason & Lewis, LLP
90 Forest Avenue
Locust Valley, NY 11560

EXAMINER	
CONTINO, PAUL F	
ART UNIT	PAPER NUMBER
2114	

DATE MAILED: 10/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/723,343	Applicant(s) DE PAUW ET AL.	
	Examiner Paul Contino	Art Unit 2114	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 November 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION: Non-Final Rejection

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claims 14 and 28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "thorough" in claims 14 and 28 is a relative term which renders the claim indefinite. The term "thorough" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. The Examiner recommends amending claims 14 and 28 by removing the term "thorough".

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Art Unit: 2114

2. Claims 1, 3-15, and 17-29 are rejected under 35 U.S.C. 102(b) as being anticipated by Sheppard et al. (U.S. Patent No. 5,130,936).

As in claims 1, 15, and 29, Sheppard et al. discloses a method, apparatus, and article of manufacture for problem determination in a distributed application, comprising the steps of:

obtaining at least one testing result of the application through execution of at least one test case of a test group in the application (*column 10 lines 49-68*); and

adaptively refining the testing of the application when the at least one testing result comprises at least one failure, to expose at least one problem that caused the at least one failure (*column 10 line 63 through column 11 line 7, and column 12 lines 43-52*).

Sheppard et al. also discloses a memory and at least one processor coupled to the memory operative to carry the invention as claimed (*column 5 line 50 through column 6 line 17*).

As in claims 3 and 17, Sheppard et al. discloses the step of obtaining testing results comprises the steps of:

generating a test group having at least one test case, from a general model of the application (*column 1 lines 25-29, column 8 lines 43-50, and column 10 lines 51-53*);

executing the at least one test case of the test group in the application (*column 10 lines 67-68*);

passing the at least one result of the test group to an outcome analyzer (*column 10 line 68 through column 11 line 2*); and

verifying the at least one result against expected output at the outcome analyzer (*column 1 lines 34-35 and 48-52, and column 1 line 66 through column 2 line 4, where the test outcome comparison with an expected conclusion is interpreted as verification*).

As in claims 4 and 18, Sheppard et al. discloses the step of verifying the at least one result comprises the step of marking each test case of the test group with a failure or a success (*column 2 lines 12-14 and column 11 lines 15-25*).

As in claims 5 and 19, Sheppard et al. discloses the step of enabling one or more probes that return one or more testing results to the outcome analyzer (*column 10 lines 4-5 and 51-53, where the selection of a test is interpreted as enabling of a probe*).

As in claims 6 and 20, Sheppard et al. discloses the step of adaptively refining the testing of the application comprises the steps of:

enabling one or more additional probes that return one or more results relating to the at least one problem (*column 11 lines 3-4 and column 12 lines 50-52*); and

repeating the method of problem determination in a distributed application (*column 11 lines 3-4 and column 12 lines 50-52*).

As in claims 7 and 21, Sheppard et al. discloses the step of adaptively refining the testing of the application comprises the steps of:

disabling one or more probes that returned one or more results that did not relate to the at least one problem (*column 11 lines 3-4 and 20-35, where choosing other tests and marking tests as “not needed” is interpreted as disabling tests*); and

repeating the method of problem determination in a distributed application (*column 11 lines 3-4 and column 12 lines 50-52*).

As in claims 8 and 22, Sheppard et al. discloses the one or more probes collect one or more intermediary results from the application (*column 13 lines 50-59*).

As in claims 9 and 23, Sheppard et al. discloses the one or more probes return one or more results relating to the functioning of the application (*column 1 lines 26-35 and column 2 lines 12-14*).

As in claims 10 and 24, Sheppard et al. discloses the step of adaptively refining the testing of the application comprises the steps of:

enabling one or more additional probes that return one or more results relating to the at least one problem (*column 11 lines 3-4 and column 12 lines 50-52*);

disabling one or more probes that returned one or more results that did not relate to the at least one problem (*column 11 lines 3-4 and 20-35, where choosing other tests and marking tests as “not needed” is interpreted as disabling tests*);

adapting the test group to comprise at least one test case focused on the at least one problem (*column 10 line 63 through column 11 line 4 and column 12 lines 50-52*); and

repeating the method of problem determination in a distributed application (*column 11 lines 3-4 and column 12 lines 50-52*).

As in claims 11 and 25, Sheppard et al. discloses the step of adaptively refining the testing of the application comprises the steps of:

adapting the test group to comprise at least one test case focused on the at least one problem (*column 10 line 63 through column 11 line 4 and column 12 lines 50-52*); and

repeating the method of problem determination in a distributed application (*column 11 lines 3-4 and column 12 lines 50-52*).

As in claims 12 and 26, Sheppard et al. discloses the step of adapting the test group comprises the step of representing at least one action that correlates to the at least one failure in a model for generating the test group (*column 9 line 59 through column 10 line 23*).

As in claims 13 and 27, Sheppard et al. discloses the step of adapting the test group comprises the step of increasing coverage requirements for at least one state that correlates to the at least one failure in a model for generating the test group (*column 9 line 59 through column 10 line 23*).

As in claims 14 and 28, Sheppard et al. discloses the test group provides **[[thorough]]** coverage across the application (*column 9 line 59 through column 10 line 66*).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 2 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sheppard et al. in view of Qiao et al. (U.S. Patent No. 6,950,782).

As in claims 2 and 16, Sheppard et al. teaches of localizing a fault. However, Sheppard et al. fails to teach of fixing a fault. Qiao et al. teaches of fixing at least one problem that caused at least one failure, when the cause of the at least one problem has been localized (*column 5 lines 55-57*).

It would have been obvious to a person skilled in the art at the time the invention was made to have included the fixing of a fault as taught by Qiao et al. in the invention of Sheppard et al. This would have been obvious because the invention of Qiao et al. offers a fast and accurate means of diagnosing and isolating a fault (*column 1 lines 56-60*). Further, one would have found it obvious to fix a fault after identification and isolation in order to keep the system operational with minimal downtime.

Conclusion

Art Unit: 2114

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

U.S. Patent No. 6,408,403 Rodrigues et al. discloses a software diagnostic fault isolation system.

U.S. Patent No. 6,012,152 Douik et al. discloses a software management system.

U.S. Patent No. 5,272,704 Tong et al. discloses a tree-based diagnostic system.

U.S. PGPub 2004/0034456 Felke et al. discloses fault isolation.

U.S. Patent No. 6,173,440 Darty discloses computer software validation.

U.S. PGPub 2006/0150026 Kolawa et al. discloses Web service testing.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul Contino whose telephone number is (571) 272-3657. The examiner can normally be reached on Monday-Friday 9:00 am - 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Scott Baderman can be reached on (571) 272-3644. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2114

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

PFC
9/17/2006



SCOTT BADERMAN
SUPERVISORY PATENT EXAMINER